

# **HP A6826A Fibre Channel Mass Storage Adapter Release Notes**



i n v e n t

**Manufacturing Part Number: J6374-90009**

**March 2004**

U.S.A.

© Copyright 2004 Hewlett Packard Development Company L.P.

---

## **Legal Notices**

The information in this document is subject to change without notice.

*Hewlett-Packard makes no warranty of any kind with regard to this manual, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.* Hewlett-Packard shall not be held liable for errors contained herein or direct, indirect, special, incidental or consequential damages in connection with the furnishing, performance, or use of this material.

### **Warranty**

A copy of the specific warranty terms applicable to your Hewlett-Packard product and replacement parts can be obtained from your local Sales and Service Office.

### **U.S. Government License**

Proprietary computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

### **Copyright Notice**

Copyright © 1997-2004 Hewlett-Packard Development Company L.P. All rights reserved. Reproduction, adaptation, or translation of this document without prior written permission is prohibited, except as allowed under the copyright laws.

### **Trademark Notices**

UNIX® is a registered trademark in the United States and other countries, licensed exclusively through The Open Group.

# 1 HP A6826A Fibre Channel Adapter Release Notes

---

## Announcement

This release note contains information pertaining to the A6826A driver provided with AR0304.

---

## What's in This Version

The following information is for version B.11.23.01 of the driver for the HP A6826A Dual Port Fibre Channel Adapter.

### Features

The A6826A is a dual port 2 Gb/s-capable Fibre Channel adapter that operates in PCI 33Mhz/66Mhz and PCI-X 66Mhz/100Mhz/133Mhz bus speeds with a 64-bit bus width.

Each port supports Auto-Speed Negotiation, and is independently capable of a 1 Gb/s or 2 Gb/s data transfer rate. Auto-Speed Negotiation allows each port on the adapter to automatically negotiate the highest speed that is common to the port and to the infrastructure connecting the port.

The fcmsutil diagnostic tool can be used to display link speed and other VPD (Vital Product Data) information.

The A6826A dual port adapter is capable of Online Addition and Replacement (OL\*). OL\* refers to the ability of a PCI card to be replaced (or added) without shutting down and rebooting the system. See your system hardware documentation to determine if OL\* is supported. For detailed information about OL\*, see the *Interface Card OL\* Support Guide*. You can view, download, or print it from <http://www.docs.hp.com>.

### Platform Support

**Table 1-1 Platforms Supported**

Systems that Support the A6826A Card	Minimum Firmware Version Required
rx2600	2.21
rx4640	2.03
rx5670	3.23
rx7620	1.9.0
rx8620	1.9.0
Integrity Superdome	1.20

### Support for HBAs

The driver (FibrChnl-01) for the A6826A also supports the A9782A and A9784A Fibre Channel/Gigabit Ethernet Combo HBAs. The A9782A is a 2 port HBA with 1 optical Fibre Channel port and 1 optical Gigabit Ethernet port. The A9784A is a 2 port HBA with 1 optical Fibre Channel port and 1 copper Gigabit Ethernet port.

---

## Driver Versions

The following table shows the driver versions for each release of the A6826A driver:

**Table 1-2      Driver Versions**

Release	HP-UX 11i v2.0	Driver Name	Bundle
Application Release 0304	B.11.23.01	fcd	FibrChnl-01

## Documentation

Additional documentation, covering the A6826A and other HP Fibre Channel adapters, is available from the web at <http://docs.hp.com> under the *Fibre Channel* area of the *Networking and Communications* section. The *HP Fibre Channel Mass Storage Adapters Support Guide*, available from the web, is the primary source of support documentation for HP Fibre Channel adapters. The *HP Fibre Channel Mass Storage Adapters Support Guide* includes adapter installation details, supported hardware platforms, supported software versions, adapter configuration, and maintenance information.

## Known Issues, Problems, Workarounds, and Recommendations

1. **Issue:** Spurious error messages may be displayed during installation of HPUX 11i v2.0 on a system which has A6826A, A9782A or A9784A HBAs installed.

The following error messages do not indicate a real problem and should be ignored:

“WARNING: The configuration is supposed to include a module 'fcd\_fcp' which is not installed on the system. The system will attempt to proceed without it, but the resulting kernel may fail to boot or function properly.”

“WARNING: The configuration is supposed to include a module 'fcd\_vbus' which is not installed on the system. The system will attempt to proceed without it, but the resulting kernel may fail to boot or function properly.”

2. **Issue:** There is a general issue when using `ioscan` when `krm` (kernel resource monitor) is not running.

When `ioscan` is run with the “-fn” or “-Fn” option and kernel resource monitor (`krm`) is not running, there could be stale `krm` device files in the system which would correspond to different devices, including `fcd`, in `ioscan` output. This issue has no impact on the functionality of the A6826A, however, `ioscan` output may be confusing. The `ioscan` output can be returned to normal by either deleting the stale `krm` device files, or by starting `krm`, which will recreate the device files. This issue can impact any card accessible with `ioscan` and is not specific to the A6826A.

3. **Issue:** There is a change in behavior in HP Fibre Channel SNIA HBA API for A6826A HBAs. It also applies for other HBAs (such as A9782A, A9784A Comb cards) controlled by FibrChnl-01. This behavior is different from the current behavior of FibrChnl-01 for 11i v1.0 (FibrChnl-01 versions B.11.11.01 and B.11.11.02).

Previously, the SNIA HBA API functions `HBA_GetFcpTargetMapping()` and `HBA_GetFcpPersistentBinding()` would incorrectly report LUN 0s that have no storage attached (such as LUN 0s with SCSI Peripheral Qualifier of 0x1). With FibrChnl-01 version B.11.23.01, these SNIA HBA API functions will no longer report such LUN 0s when they are seen through A6826A, A9782A and A9784A HBAs on HPUX 11i v2.0.

Previous versions of SNIA HBA API for FibrChnl-01 and FibrChnl-00 incorrectly report LUN 0s with SCSI Peripheral Qualifier of 0x1. These LUN 0s are also incorrectly displayed by `ioscan`.

This behavioral change will also be included in the next release of FibrChnl-01 (version B.11.11.03) for 11i v1.0 in AR0604, and will be rolled into FibrChnl-00 as well. However, `ioscan` will still display LUN 0s with SCSI Peripheral Qualifier of 0x1.

4. **Issue:** There is a problem which may occur on some A6826A HBAs. It may also occur on the Fibre Channel ports of other HBAs (such as A9782A, A9784A) controlled by FibrChnl-01.

An error may be reported when a request for link statistics is issued on a Fibre Channel port that has never been online (such as Fibre Channel ports that have been unconnected since boot). This is not a real error and customers are advised to ignore it if they see it.

This problem impacts the following:

- `fcmsutil < FCD device file > stat`

This command may output the error message ERROR: Unable to get link stats. Firmware returned error under the Link Statistics section of the port statistics if it is called for a port which has never been online. Other statistics reported by this command are unaffected.

- SNIA HBA API function `HBA_GetPortStatistics()`

The function `HBA_GetPortStatistics()` may return `HBA_STATUS_ERROR` if it is called for a port which has never been online.

**5. Recommendation:** In configurations where HP Fibre Channel HBAs are connected to an FL port through a hub, the following are recommended:

- a. FL ports that are connected to a hub should be locked into loop-only mode wherever possible. With HP StorageWorks SAN 2/8, SAN 2/16, SAN 2/32 or Core 2/64 switches this can be done using the `portCfgLport` command. The `portCfgLport` command is documented in the switch man pages.
- b. Always have at least one non-FL port connected to the hub when there is an FL port connected to the hub.
- c. Plug the FL port into the hub last.
- d. Do not reboot all hosts connected to the hub at the same time.
- e. Do not reset all HBA ports connected to the hub at the same time.
- f. HBA ports should not be connected to adjacent ports on a hub wherever possible.

## Compatibility Information and Installation Requirements

### Software Requirements

The following software (or later versions) must be installed before installing the A6826A, A9782A or A9784A HBAs into a system:

- FibrChanl00 version B.11.23.02. This can be obtained from the March 2004 AR Media; or from <http://www.software.hp.com>.
- PHKL\_30309 (Needed for fcmsutil support for A6826A, A9782A, and A9784A)
- Product number B6191AAE, OnlineDiag bundle version B.11.23.02.22, released in Mar 04 (HWE0403).

---

**NOTE** Patches are available from either <http://www.software.hp.com> or <http://ITresourcecenter.com>.  
OnlineDiag is available at <http://www.software.hp.com>. OnlineDiag is also available from the HP Support PLUS CD (March 2004 and later). Installation instructions are available from [http://docs.hp.com/hpux/onlinedocs/diag/st/st\\_inst.htm](http://docs.hp.com/hpux/onlinedocs/diag/st/st_inst.htm).

---

### Requirements for Boot Support

To boot through the Fibre Channel ports of the A6826A, A9782A or A9784A HBAs, the following are required:

- EFI driver version 1.30 or later
- ROM firmware version 3.2.168 or later

---

**NOTE** EFI driver and ROM firmware versions can be displayed by running `fcmsutil <fc device file> vpd`

---

## **Software Availability in Native Languages**

This product is available only in the English language.